DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program
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November 13, 2008

Contract No. 04-0120F4
04-SF-80-13.2 / 13.9
Self-Anchored Suspension Bridge
Letter No. 05.03.01-002961

Michael Flowers
Project Executive
American Bridge/Fluor, A JV
375 Burma Road
Oakland, CA 94607

Dear Michael Flowers,

Submittal 880 - October 2008 Proposed Revision

The Department has reviewed Submittal ABF-SUB-000880, which provides a proposed revision schedule with a data date of October 20, 2008. The Department has reviewed the submittal and finds it to be acceptable contingent upon the Contractor addressing the following comments:

A. Project and Schedule Status:

A1. Reference 1.2 – Submittals

Activity BDSUB000400, "Prepare Sea Transportation Plan – Bridge Deck," was started on September 22, 2008, and indicates 79-days behind schedule. How will this impact delivery of OBG segments and T1 Tower? Submit a proposed recovery for this key submittal.

A2. Reference 1.2 – Submittals

The following activities were statused at 100%, but do not have actual completion dates. Explain or actualize these activities.

Activity ID	Activity Name
BDSUBCJ2850	Prepare WD - Traveler Rail - BG Lifts 7E, 7W, 8E, 8W - Pkg 149
BDSUBCJ4300	Prepare WD - Traveler Rail - BG Lifts 11E, 11W - Pkg 155
BDSUBCJ5635	Prepare WD - Traveler Rail - BG Lifts 13E, 13W, 14E, 14W - Pkg 158
T1SUBCJ1520	Prepare AWD - T1 Tower Ladders, Platforms, Misc. - Pkg 58

A3. Reference 1.4.2.1 – Contract Change Order Schedule Changes

There exists finish-to-start successor logic from the following change order activities and submittals related to CCOs to activities which have previously been completed. It is noted that some of the out-of-sequence relationships are to activities in the RFI file, which is not considered a part of the contract schedule. See Appendix A. Correct out of sequence logic.

Activity ID	Activity Name
PGCCO0024S0	CCO #024 – Traveler Rail and Trolley Modifications
PGCCO0040S0	CCO #040 – Cable Tie-Down Alternative
PGCCO0041S0	CCO #041 – Pad Eye Modifications
BDSUBCJ1465	CT Approve AWD - Standard Details & Welding Details - Crossbeam 1 to 3 - Revision per CCO38
BDSUBCJ1485	CT Approve AWD - Crossbeam Shop Drawings - Crossbeam 3 - Revision per CCO38

BDSUBCJ1505	CT Approve AWD - Crossbeam Shop Drawings - Crossbeam 2 - Revision per CCO38
BDSUBCJ1525	CT Approve AWD - Crossbeam Shop Drawings - Crossbeam 2 - Revision per CCO38

A4. Reference 1.5.2.1 – Shearleg Crane / Barge Fabrication

As stated in the narrative, it has been determined that the testing and commissioning, which is currently underway, will require more time to complete than originally anticipated. This anticipated additional time is not indicated in the October 2008 schedule. The original duration remains unchanged at 48-days. This additional time for testing and commissioning in China is of concern since the October 2008 schedule is currently showing the delivery of the shearleg crane barge 109-days behind schedule (without the additional testing and commissioning time included). Revise PGFABBK0426-Testing & Commissioning of Shearleg Crane Barge to include additional time and identify any anticipated impacts.

A5. Reference 1.5.3 – Changes to Schedule

Although the narrative states *"None this period,"* a comparison between the September 2008 schedule and the October 2008 shows the following summary of a few of the changes:

Item	Description of Schedule Change
1	39 - As-built Activities Have Been Deleted
2	51 - Activities Added to the October 2008 Schedule
3	4 – Activities Have Modified Original Durations
4	243 – Relationships Were Deleted With Activities
5	198 – Relationships Were Added to Existing Activities
6	16 – Expected Finish Dates Were Added
7	85 – Activities Have (New) Actual Dates Added Before Previous Data-Date

The Department has continued to request that ABF document and report all changes made to the schedule, including the effect the changes have on the schedule. Several options have been discussed including Primavera Reflections, Schedule Analyzer and utilizing a log to record all changes made. The narrative report fails to document all the changes made to the schedule. It is again requested that all proposed changes to the schedule be documented and explained.

A6. Reference 1.5.3 – Changes to Schedule

In addition, actual dates previous to the September data date were added to activities in the October 2008 schedule submission. The retro-active changes in the October 2008 schedule and to earlier schedule submissions could invalidate earlier reviews. Therefore, should the September 2008 schedule be needed for the development of a Time Impact Analysis, a resubmission may be required to include the retroactive changes along with addressing comments included with the Department's reviews.

A7. Activities with Original Durations Greater than 20 days

There are 96 fabrication and construction activities scheduled to begin within six months with durations greater than 20 days (See Appendix B). These activities need to be broken so that better projected schedule dates are provided and improve the reliability of the schedule. It is suggested that ABF choose a block or grouping of activities on a monthly basis which need to be broken down and make the necessary adjustments.

A8. There are numerous activities in the Main, OBG, and T1 schedules with larger free float values than total float. Are these activities constrained correctly? Review all activities where free float exceeds total float and revise accordingly.

A9. Reference 1.6.1 – Description of the Current Critical Path

a. It is agreed that the current Critical Path continues to pass through the Tower T1 Fabrication. However, it is noted there exists over two dozen OBG activities on the ABF identified critical path designated as "Path=1." ABF has explained this to be a coding error in the OBG file.

b. The revised sequence in the previous submission, which changed fabricating shafts in Lift 1 then moving to Lift 2 etc., to prioritizing the south and east shafts of Lifts 1 and 2, then working on the north and west shafts, remains to be explained. Provide a written clarification /explanation in the next monthly submittal for this major change in means and methods which impact T1 Tower fabrication.

A10. Reference 1.7.3.6- NOPC 6 Hinge K Pipe Beam –Alternative Material

As agreed to with ABF, this NOPC is considered inactive. The supplier has not responded to State Letter 05.03.01-002046, dated May 27, 2008.

A11. Reference 1.8 – Contract Completion Dates Status

Although the project phase completion milestones were unchanged last period due to doubling shifting T1 critical activities, they continue to slip this period as they have during the previous 10 months. It is noted that Phase 1 remains 242-days behind, Phase 2 remains 191-days behind, and Phase 3 remains 191-days behind schedule. This is unacceptable pursuant to the specifications and ABF is requested to submit a plan to mitigate the project negative float.

B. <u>Area Specific Detail – W2 Cap Beam:</u>

B1. Reference 2.2.1 – Description of Current Problem Areas / Anticipated Delays

There has been no progress in Hinge K fabrication activities W2FABBJ0190, W2FABBJ0208, W2FABBJ0226 and W2BJ0244; although ABF has indicated that a path forward has been developed. The original durations for these four activities are 25, 25, 22, and 22 days, even though the actual durations to date are 174 days. It is again noted that the narrative report fails to mention that a portion of the additional duration is due to equipment breakdowns which have stopped production. How will the delays due to the equipment breakdowns be represented in the schedule? It is suggested that a suspension and an equipment breakdown activity be added to the schedule. It is required that an explanation be provided in the narrative for activities that have actual durations that are significantly longer than the planned durations.

B2. Reference 2.4.1 Non Compliance Notices

As required, ABF has been requested to provide the status of outstanding NCTs. Instead ABF has only provided a generic listing of all Non-Compliance Notices. To help facilitate timely resolution, the Department has listed the NCTs by area and has listed all outstanding NCTs that should be in review for each area of work. Address these outstanding issues and follow a similar format in future narratives.

MATERIAL LOCATION	FABRICATOR	NCT TOTAL	NPRs PENDING ABF	NPRs REJECTED	NPRs ACCEPTED, ACTION PENDING	NPRs CLOSED
W2 CAP BEAM	ABF	2				2
PIPE BEAM	OIW	9	2	3		4
TO DATE - AS OF OCT 27, 2008		11	2	3	0	6
CURRENT - SEPT 21-OCT 27, 2008		2		3		6

PIPE BEAM - PENDING NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
OIW-0008	Hinge K pipe beam fuse sections, after rolling of plates / heat D5551-3A and D5551-5B.	27-Aug-08			
OIW-0009	The Contractor failed to notify the Department of the shipment of heats D5002-2, D5002-3, D4848-5B, D5551-6A.	19-Sep-08			

PIPE BEAM - REJECTED NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
OIW-0003	Hinge K pipe beam fuse section after rolling, plate / heat D5002-2.	14-Jul-08	ABF-NPR-000090R00	21-Aug-08	23-Oct-08
OIW-0006	Hinge K pipe beam fuse section after rolling of plates / heat D5002-3, D4848-5B and D5510-6A	07-Aug-08	ABF-NPR-000093R00	21-Aug-08	23-Oct-08
OIW-0007	Hinge K pipe beam fuse section after rolling of plate / heat D4838-8A.	07-Aug-08	ABF-NPR-000094R00	21-Aug-08	23-Oct-08

C. Area Specific Detail – Temp Towers:

C1. Reference 3.1.4 – Construction

The actual start of activity TTCON000120, "Erect Truss – TT A-B East (E1 – E4)," was on October 10, 2008, and the schedule is currently showing a start date of November 18, 2008. Review and revise the dates for this activity and its predecessor, TTFABCG0070, "Transport & Deliver Truss Members to SFOBB – TT A-B East (E1-E4)."

C2. Reference 3.1.4 – Construction

The CE foundations had been poured and the forms were stripped by October 17, 2008. The CW foundations were prepared by October 20, 2008 to be poured the next day. The current schedule shows a projected completion date of December 15, 2008 for TTCON000310, "Construct Foundation - TT CE," and December 16, 2008 completion date for TTCON000320, "Construct Foundation -TT CW." Review and revise accordingly.

C3. Reference 3.1.4 – Construction

Temp Tower F construction activities do not appear to reflect CCO 102, "Temp Tower Acceleration." The CCO directed the Contractor to accelerate fabrication, assembly, and installation of temporary tower foundation elements. This includes pile driving, splice welding, pile connection welding, grouting and driving frame fabrication, transport and installation. This work is anticipated to be completed by December 31 and the October 2008 schedule shows the TT F foundation system not complete until March 18, 2009. Review and revise accordingly.

D. Area Specific Detail – OBG Bridge Deck:

D1. Reference 4.1.1.2.4

The scope of CCO 77 is still under review.

D2. Reference 4.1.3.5

Fabrication and segment assembling of longitudinal trusses, "Fab - LT1 & LT2" and "Fab - BP4 CB Bottom Flange," for Lifts 3 though 5 appear to be complete. Review your status of these activities and revise accordingly. It is understood that the longitudinal truss activities may be removed from the schedule since ABF is unable to accurately track the progress.

D3. Reference 4.1.3.4

It is noted that ZPMC has decided to wait to install deck panels in the segment assembly area. There are currently over 400 deck panels welded. How many more deck panels is ZPMC waiting for before they set the super panels in the segment assembly area?

D4. Reference 4.1.3.6

It is noted that the lack of production continues and that the amount of work space and jigs available appears to be insufficient to either maintain production at an acceptable rate and/or to make up for lost time. Since January 2008, the Department has requested that ABF provide the number of jigs that are planned to be implemented. Past narratives have stated that ZPMC has 24 Jigs available. There are currently 14 segments in the jigs with no room for any other segments. It has been pointed out that the current Resource Leveling Approach to the segment assembly is not working due to the variable length of the segments and the segment assembly bay physical constraints. The Department again requests a workshop meeting as a forum to discuss a proper schedule model for OBG fabrication.

D5. Reference 4.2.1.1 and 4.2.1.2

It is noted that a new welding procedure specification is being implemented to minimize the amount of cracked tack welds. The acceptance criteria for cracked tack welds are being developed with the Contractor at the fabrication site. Obtaining acceptable deck panels remains a high priority for the Department.

D6. Reference 4.2.1.5

The two sketches forwarded in State Letter No. 05.03.01-002720 references Contract Drawing 943 of 1204. The Contractor has this contract drawing in its possession.

D7. Reference 4.2.1.6

A response resolving RFI 1421 R3 was issued by the Department on October 21, 2008.

D8. Reference 4.2.1.7

CCO 99 is a change order designated for multiple changes concerning the bike path. The Department is providing ABF information (sketches, ATP, etc.) regarding changes as soon as they are identified. This method may seem piecemeal to ABF, but waiting for all the changes to be identified before issuing the CCO is not an optimal solution. Information and ATPs for each change included in the CCO are being provided as efficiently and promptly as possible in order to avoid incorrect fabrication and/or revising approved shop drawings.

D9. Reference 4.2.1.10
The revised scope of CCO 53 will minimize the amount of grinding necessary.

D10. Reference 4.2.1.8-9 and 4.2.1.11-12
The Department is making every effort to approve shop drawings in a timely manner so that luminaire supports and cable tray supports and other MEP related penetrations are shop installed. It is noted that shop drawings with penetration locations identified have been approved and ABF/ZPMC has been reluctant to drill/cut them to date. Lifts 3, 4, and 5 are currently in segment assembly and few, if any, penetrations have been cut. Department representatives will be meeting with ABF China the week of November 10 to address this issue.

D11. Reference 4.2.1.14
Any impacts to detailing shop drawing will be captured in CCO 87.

D12. Reference 4.2.2.2
The Department understands that ABF prefers that the penetrations are installed during segment assembly stage and that shop drawings for lifts currently in the assembly area are complete with MEP penetrations. What is the additional work that ZPMC will have to conduct?

D13. The schedule shows that the segment assembly of lifts 1 and 2 has a planned start of October 29, 2008. Where will the assembly take place and what is the current status of jig set-up?

D14. It is still unclear as to how ABF intends to address the rejected deck plate panels in the CPM. Provide a proposed solution to resolve this issue.

D15. The jig assembly resource does not accommodate the variable length of segments. For example, the planned start of Segment 6A (20m in length) cannot begin after the completion of Segment 3A (15.4m in length). Budgeted units may have to reflect the segment length and the maximum resource limit may have to reflect the jig space available. How does ABF intend to address this situation?

D16. Although ABF states that they continue to review potential mitigation measures in conjunction with Time Impact Analysis, there remains no explanation of the continued lack of scheduled progress on the critical and controlling operations. The following activities had no progress this reporting period. An explanation and a proposed plan to correct this condition is required.

Activity ID	Type	Float	%-Comp	Activity Name
07AECUT07AE05	Task	43	0.6	Cutting - Segment 7AE
07AWCUT07AW05	Task	64	0.6	Cutting - Segment 7AW
07BECUT07BE05	Task	47	0.6	Cutting - Segment 7BE
07BWCUT07BW05	Task	61	0.6	Cutting - Segment 7BW
07CECUT07CE05	Task	52	0.6	Cutting - Segment 7CE
07CWCUT07CW05	Task	76	0.6	Cutting - Segment 7CW
07DECUT07DE05	Task	60	0.6	Cutting - Segment 7DE
07DWCUT07DW05	Task	80	0.6	Cutting - Segment 7DW
07EECUT07EE05	Task	75	0.6	Cutting - Segment 7EE
07EWCUT07EW05	Task	92	0.6	Cutting - Segment 7EW

08AECUT08AE05	Task	75	0.6	Cutting - Segment 8AE
08AWCUT08AW05	Task	84	0.6	Cutting - Segment 8AW
08BECUT08BE05	Task	86	0.6	Cutting - Segment 8BE
08BWCUT08BE15	Task	71	0.6	Cutting - Segment 8BE

D17. Why are the installations of the sign structures being deferred by approximately two years?

D18. Start of the following activities appears to continue to ride the data date. Please elaborate.

Activity ID	Activity Name	Duration	Update 24 Start	Update 25 Start
01AEFABA00115	Fab - DP4 - PL893A	1	20-Sep-08	20-Oct-08
01AEFABA00120	Fab - DP5	1	20-Sep-08	20-Oct-08
01AEFABA00125	Fab - DP6 - PL893B	1	22-Sep-08	20-Oct-08
01AEFABA00130	Fab - DP7 - PL898A	1	22-Sep-08	20-Oct-08
01AEFABLDTA10	Fab - LDT2	1	20-Sep-08	20-Oct-08
01BEFABFL0105	Fab - FL1-1 - 10.5	1	20-Sep-08	20-Oct-08
01BEFABLDTA10	Fab - LDT2	1	20-Sep-08	20-Oct-08
01BWFABFL0105	Fab - FL1-1 - 10.5	1	20-Sep-08	20-Oct-08
01HEFABB00305	Fab - EP1	1	20-Sep-08	20-Oct-08
01HEFABBHEP05	Fab - BH1	1	20-Sep-08	20-Oct-08
01HEFABC00505	Fab - SP2	1	20-Sep-08	20-Oct-08
01HEFABC00510	Fab - SP3	1	20-Sep-08	20-Oct-08
01HEFABE00S05	Fab - ES1 - 39	1	20-Sep-08	20-Oct-08
01HWFABBHEP05	Fab - BH1	1	20-Sep-08	20-Oct-08
01HWFABE00S05	Fab - ES1 - 39	1	20-Sep-08	20-Oct-08
03AEFABCBBP05	Fab - BP4 CB Bottom Flange	1	20-Sep-08	20-Oct-08
03AEFABLOTR05	Fab - LT1	1	20-Sep-08	20-Oct-08
03AEFABLOTR10	Fab - LT2	1	20-Sep-08	20-Oct-08
03AWFABCBBP05	Fab - BP4 CB Bottom Flange	1	20-Sep-08	20-Oct-08
03AWFABLOTR05	Fab - LT1	1	20-Sep-08	20-Oct-08
03AWFABLOTR10	Fab - LT2	1	20-Sep-08	20-Oct-08
03BEFABLOTR05	Fab - LT1	1	20-Sep-08	20-Oct-08
03BEFABLOTR10	Fab - LT2	1	20-Sep-08	20-Oct-08
04BEFABCBBP05	Fab - BP4 CB Bottom Flange	1	20-Sep-08	20-Oct-08
04BWFABCBBP05	Fab - BP4 CB Bottom Flange	1	20-Sep-08	20-Oct-08
07AEFABA00205	Fab - DP1 - PL1370A	1	20-Sep-08	20-Oct-08
07AEFABA01005	Fab - DP11 - PL1301A	1	20-Sep-08	20-Oct-08

D19. Completion of the following activities appears to continue to ride the data date. Please elaborate.

Activity ID	Activity Name	Update 24 Early Finish	Update 25 Early Finish
07AECUT07AE05	Cutting - Segment 7AE	22-Sep-08	21-Oct-08
07AWCUT07AW05	Cutting - Segment 7AW	22-Sep-08	21-Oct-08
07BECUT07BE05	Cutting - Segment 7BE	22-Sep-08	21-Oct-08
07BWCUT07BW05	Cutting - Segment 7BW	22-Sep-08	21-Oct-08
07CECUT07CE05	Cutting - Segment 7CE	22-Sep-08	21-Oct-08
07CWCUT07CW05	Cutting - Segment 7CW	22-Sep-08	21-Oct-08
07DECUT07DE05	Cutting - Segment 7DE	22-Sep-08	21-Oct-08
07DWCUT07DW05	Cutting - Segment 7DW	22-Sep-08	21-Oct-08
07EECUT07EE05	Cutting - Segment 7EE	22-Sep-08	21-Oct-08
07EWCUT07EW05	Cutting - Segment 7EW	22-Sep-08	21-Oct-08
08AECUT08AE05	Cutting - Segment 8AE	22-Sep-08	21-Oct-08
08AWCUT08AW05	Cutting - Segment 8AW	22-Sep-08	21-Oct-08
08BECUT08BE05	Cutting - Segment 8BE	22-Sep-08	21-Oct-08
08BWCUT08BE15	Cutting - Segment 8BE	22-Sep-08	21-Oct-08

D20. As previously discussed, the narrative report should quantify the actual production of each resource vs. the planned production. Currently, production rates (resource capacity limits) have not been achieved for numerous resources. Likewise, activity durations have not accounted for the learning curve that fabrication is now experiencing. OBG production, which had positive float in January 2008, is showing approximately 195-days behind schedule in the proposed October 2008 revision. OBG and T1 float counts are not reliable due to overestimating resource capacity. Any impact analysis or mitigation analysis would need to be based on achievable and practicable resource limits. What measures will be taken to ensure that the resource capacity limits and activity durations in the schedule can be achieved?

D21. As previously discussed, several segments are scheduled into the painting facility at the same time. Can the painting facility handle 6 segments and several components from the tower at any given day? It appears that this resource may be exceeding its through-put capacity. Adjust the limits of this resource and level accordingly or provide hard logic ties between paint activities.

D22. The Department has provided plate IDs for the deck plates to ABF for review and incorporation into the schedule. What is the status of ABF's review?

D23. Reference 4.4.1 Non Compliance Notices

MATERIAL LOCATION	FABRICATOR	NCT TOTAL	NPR's PENDING ABF	NPR's REJECTED	NPR's ACCEPTED, ACTIONS PENDING	NPR's CLOSED
OBG	ZPMC	91	3	13	14	45
OBG / GENERAL (WQCP)	ZPMC	7				7
BIKE PATH	DYSON	2				2
TO DATE - AS OF OCT 27, 2008		100	3	13	14	54
CURRENT - SEPT 21 - OCT 27, 2008		2	2	10	14	12

PENDING NPR's - OBG

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0170	Unapproved thermal cutting of SP-080 and BP-022	16-Sep-08			
ZPMC-0177	Undersized Reinforcement	28-Sep-08			
ZPMC-0183	PJP non uniform groove face	23-Oct-08			

OBG - REJECTED NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0091	The Contractor performed fabrication on unidentified stock material that has not been approved by the Engineer.	24-Mar-08	ABF-NPR-000083R00	19-Aug-08	11-Sep-08
ZPMC-0092	The Contractor performed fabrication on unidentified stock material that has not been approved by the Engineer.	24-Mar-08	ABF-NPR-000084R00	19-Aug-08	11-Sep-08
ZPMC-0133	Base metal repairs	30-May-08	ABF-NPR-000131R00	10-Sep-08	14-Sep-08
ZPMC-0101	The Contractor did not build-up the entire groove face of the joint to acceptable dimensions. The Contractor performed welding to correct excessive root opening between two parts at the root	09-Apr-08	ABF-NPR-000105R00	25-Aug-08	24-Sep-08
ZPMC-0109	The Contractor performed welding of closed ribs to box shell plate using unapproved welding procedures. Due to a mechanical malfunction with the closed rib welding machine, the	15-Apr-08	ABF-NPR-000135R00	11-Sep-08	28-Sep-08
ZPMC-0143	Workmanship not in conformance	30-Jun-08	ABF-NPR-000137R00	11-Sep-08	29-Sep-08
ZPMC-0154	Unapproved Heat Straightening EP-004A	13-Aug-08	ABF-NPR-000144R00	11-Sep-08	01-Oct-08
ZPMC-0161	Unapproved thermal cutting methods for EP-204	25-Aug-08	ABF-NPR-000149R00	11-Sep-08	01-Oct-08
ZPMC-0163	Diaphragm Manual Cutting	04-Sep-08	ABF-NPR-000151R00	11-Sep-08	01-Oct-08
ZPMC-0166	Unapproved Freehand Thermal Cutting	09-Sep-08	ABF-NPR-000153R00	11-Sep-08	01-Oct-08
ZPMC-0067	The Contractor performed weld repairs without prior Engineer approval on the closed ribs to box shell plate by grinding.	20-Feb-08	ABF-NPR-000074R01	24-Sep-08	16-Oct-08
ZPMC-0068	The Contractor performed weld repairs without prior Engineer approval on the closed ribs to box shell plate.	20-Feb-08	ABF-NPR-000046R01	24-Sep-08	16-Oct-08
ZPMC-0119	The Contractor performed weld and base metal repairs without receiving prior Engineer approval. The Contractor repaired areas of excessive porosity in the GMAW root pass of a closed rib to box shell plate weld.	24-Apr-08	ABF-NPR-000123R01	24-Sep-08	16-Oct-08

OBG - ACCEPTED, ACTION PENDING NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0037	The Contractor performed repairs to welds without prior approval from the Engineer on 7 floorbeam web plates.	08-Feb-08	ABF-NPR-000081R02	15-Sep-08	23-Sep-08
ZPMC-0126	Base metal repairs without following approved procedures	19-May-08	ABF-NPR-000108R01	08-Sep-08	25-Sep-08
ZPMC-0110	The Contractor performed welding repairs on closed ribs to box shell plate without receiving prior approval from the Engineer.	15-Apr-08	ABF-NPR-000118R01	24-Sep-08	26-Sep-08
ZPMC-0115	The Contractor missed cracks found in welds and performed base metal repair without receiving prior Engineer approval.	22-Apr-08	ABF-NPR-000120R00	10-Sep-08	28-Sep-08
ZPMC-0129	Unapproved straightening of deck panel DP017-001	30-May-08	ABF-NPR-000128R00	10-Sep-08	28-Sep-08
ZPMC-0084	The Contractor used structural components as grounding connections which resulted in arc strikes.	14-Mar-08	ABF-NPR-000040R01	01-Oct-08	01-Oct-08
ZPMC-0124	Repairs to Base Metal	19-May-08	ABF-NPR-000065R01	01-Oct-08	01-Oct-08
ZPMC-0128	Repair of SPMC material	30-May-08	ABF-NPR-000071R02	01-Oct-08	01-Oct-08
ZPMC-0125	Repairs of Cracks without Engineer Approval	19-May-08	ABF-NPR-000126R00	10-Sep-08	01-Oct-08
ZPMC-0153	Incorrect welding of T Stiffeners Splice Backing	12-Aug-08	ABF-NPR-000143R00	11-Sep-08	01-Oct-08
ZPMC-0160	Closed Rib Weld One Stem at a Time	25-Aug-08	ABF-NPR-000148R00	11-Sep-08	01-Oct-08
ZPMC-0162	Members cut apart without Engineer Notification	25-Aug-08	ABF-NPR-000150R00	11-Sep-08	01-Oct-08
ZPMC-0165	Installation of Diaphragms on Various DP's	09-Sep-08	ABF-NPR-000152R00	11-Sep-08	01-Oct-08
ZPMC-0145	Segment 3BE FB Wrapped Fillet Weld to SP and BP	03-Jul-08	ABF-NPR-000157R00	11-Sep-08	01-Oct-08

E Area Specific Detail - T1 Tower:

E1. Reference 5.2.1. Description of Current Problem Areas/Anticipated Delays
Comments are noted.

E2. It was noted in the previous review that ABF had created a new double shift calendar (6D-CH DS) and assigned it to the T1FM (Final Machining and T1SFM (Splice Final Machining – milling)) resources, as well as to activities with these resource assignments. The application of assigning the 6D-CH DS calendar to these resources resulted in an adjustment to a portion of the future project controlling path that is contained within T1 Tower fabrication. Further, the float counts through a path which is part resource driven and part logic driven becomes inconsistent with variations of 100 to 150-days or more. It was requested that ABF change the calendars back to a 6-day a week calendar and adjust the activity durations accordingly or utilize other methods which will maintain the float counts. The Department has provided several examples for resolving this issue, including adding an activity code for all double shifted activities; however, no adjustments have been made in this schedule submission to correct the problem. Numerous activities in the schedule are double shifted, but only the activities associated with these two resources are on a double shift. Review and revise accordingly.

E3. The following critical activities had no progress this reporting period. Please explain why.

Activity ID	Total Float	Orig Dur	Act Dur	Activity Name
01SLSP760	-78	6	0	Lift 1 & 2 - Shaft S - Face B - Fabricate Interior Splice Plates
01EDPL135	-119	3	21	Lift 1 - 47.60 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL130	-119	3	20	Lift 1 - 43.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL125	-119	3	20	Lift 1 - 38.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL120	-119	3	20	Lift 1 - 33.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL115	-119	3	21	Lift 1 - 28.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL110	-119	3	21	Lift 1 - 23.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01EDPL105	-119	3	21	Lift 1 - 18.00 m - Shaft E (Face A) - Fit-Up & Weld Doubler Plate to Skin Plate
01WSKP005	-212	2	159	Lift 1 - Shaft W - Fabricate Plate A (Butt Weld)
01WSKP025	-219	11	52	Lift 1 - Shaft W - Fabricate Plate E (Butt Weld)
01NSKP005	-238	2	101	Lift 1 - Shaft N - Fabricate Plate A (Butt Weld)

E4. The following critical activities had diminishing progress this reporting period. Please explain why these activities had negative progress and propose a plan to recover.

Activity ID	Total Float	Orig Dur	Act Dur	Activity Name
02SSKP020	-140	5	16	Lift 2 - Shaft S - Fabricate Plate D (Butt Weld)
02SSKP010	-144	5	30	Lift 2 - Shaft S - Fabricate Plate B (Butt Weld)
02SSKP025	-146	8	40	Lift 2 - Shaft S - Fabricate Plate E (Butt Weld)
02ESKP020	-155	5	18	Lift 2 - Shaft E - Fabricate Plate D (Butt Weld)
01WSKP020	-198	7	60	Lift 1 - Shaft W - Fabricate Plate D (Butt Weld)
01WSKP010	-209	7	6	Lift 1 - Shaft W - Fabricate Plate B (Butt Weld)
01WSKP005	-212	2	159	Lift 1 - Shaft W - Fabricate Plate A (Butt Weld)
01WSKP025	-219	11	52	Lift 1 - Shaft W - Fabricate Plate E (Butt Weld)
01NSKP020	-223	7	13	Lift 1 - Shaft N - Fabricate Plate D (Butt Weld)
01NSKP025	-227	11	66	Lift 1 - Shaft N - Fabricate Plate E (Butt Weld)
01NSKP010	-231	7	14	Lift 1 - Shaft N - Fabricate Plate B (Butt Weld)
02ESKP015	-231	10	13	Lift 2 - Shaft E - Fabricate Plate C (Butt Weld)
01NSKP005	-238	2	101	Lift 1 - Shaft N - Fabricate Plate A (Butt Weld)
02ESKP025	-238	8	39	Lift 2 - Shaft E - Fabricate Plate E (Butt Weld)
02ESKP010	-238	5	36	Lift 2 - Shaft E - Fabricate Plate B (Butt Weld)

E5. Reference 5.4.1 Non Compliance Notices

MATERIAL LOCATION	FABRICATOR	NCT TOTAL	NPR's PENDING ABF	NPR's REJECTED	NPR's ACCEPTED, ACTIONS PENDING	NPR's CLOSED
TOWER	ABF	1				0
TOWER	ZPMC	17	4	3	1	7
TOWER MOCK-UP	ZPMC	38		2	2	17
TOWER / GENERAL (WQCP)	ZPMC	1			1	0
TO DATE - AS OF OCT 27, 2008		57	4	5	4	24
CURRENT - SEPT 21 - OCT 27, 2008		5	4	2	4	7

TOWER - PENDING NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0178	ABF representative inform Caltrans Quality Assurance that ZPMC was shipping two Tower Double Diaphragms identified as SSD1-28m and SSD1-33m for machining, with fabrication and testing not completed. The aforementioned double diaphragms were not accepted	25-Sep-08			
ZPMC-0179	Quality Assurance identified a 35mm linear indication during magnetic particle testing, indicative of crack in the PJP groove weld, 43M Diaphragm plate weld number NSD1-SA27 B/B-8. ZPMC Quality Control Inspectors had previously tested and accepted the we	29-Sep-08			
ZPMC-0181	ZPMC did not follow the approved fabrication plan for welding stiffeners to skin when welding stiffener E3, to Skin E of the East shaft. p708 of stiffener E3 was not welded when the other stiffeners were welded to Skin E. The approved fabrication plan	16-Oct-08			
ZPMC-0182	undersized fillet weld at doubler plate strut openings	22-Oct-08			

TOWER - REJECTED NPR's

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0123	ABF has allowed ZPMC to perform Heat Straightening (HS) using methods which were not approved by the Engineer. The use of weight an active method to straighten during heating is not a step in the ABF/ZPMC approved fabrication plan for the	13-May-08	ABF-NPR-000069R00	18-Aug-08	11-Sep-08
ZPMC-0159	Shipping of Tower Diaphgrams not completed	22-Aug-08	ABF-NPR-000147R00	11-Sep-08	28-Sep-08
ZPMC-0164	ZPMC shipped of five (5) Tower Double Diaphragms identified as ESD1-38m, ESD1-33m, SSD1-38m, SSD1-47.6m and SSD1-23m for machining with fabrication and testing not completed. The aforementioned double diaphragms were not accepted by	09-Sep-08	ABF-NPR-000158R00	11-Sep-08	28-Sep-08

TOWER MOCKUP - REJECTED

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0051	ZPMC welded Skin Plate "D" to "E" identified as weld joint # MUB-MA21 D/J-5 with an excessive root opening measuring	08-Feb-08	ABF-NPR-000034R00	03-Jul-08	10-Sep-08
ZPMC-0074	ZPMC used a 10 ton jack to aid in the fit-up of internal bolt connection plates on skin D of the 114m Mock-up.	21-Feb-08	ABF-NPR-000035R00	03-Jul-08	07-Sep-08

TOWER - ACCEPTED, ACTION PENDING

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0118	ABF has allowed ZPMC QC to accept a Complete Joint Penetration weld with a crack on weld # NSD1-SA335-1, plate SA335 to P459. ZPMC QC Inspector MR. Botin Rui accepted the weld on April 18, 2008. Caltrans QA Inspector Viars retested the weld by MT and foun	22-Apr-08	ABF-NPR-000122R00	10-Sep-08	29-Sep-08

TOWER MOCKUP - ACCEPTED, ACTION PENDING

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0019	ABF allowed ZPMC to weld in the horizontal (2G) position using four (4) welders that were not qualified or approved by Caltrans.	22-Jan-08	ABF-NPR-000078R01	15-Sep-08	23-Sep-08
ZPMC-0022	ZPMC received and welded with SMAW TL-508 (E-7018) electrodes that were not issued from hermetically sealed containers.	22-Jan-08	ABF-NPR-000080R01	15-Sep-08	23-Sep-08

TOWER / GENERAL (WQCP) - ACCEPTED, ACTION PENDING

NCR Num	NCR Ref Des	NCT Date	NPR Num	NPR Date	CT Resp Date
ZPMC-0020	ZPMC used TL-508 (E-7018) electrodes that do not appear to have been dried prior to storage	22-Jan-08	ABF-NPR-000079R01	15-Sep-08	23-Sep-08

F Area Specific Detail - Cable System:

F1. Reference 6.1.1.1 - Procurement

The comments concerning the fact that the agreement with Nippon Steel, Inc. is still unresolved and pending resolution due to procurement of insurance is of concern. This issue needs to be expedited because the schedule indicates that the Cable Wrapping Wire Submittals and Fabrication of the Wrapping Wire Machine is 30-days behind schedule.

F2. Reference 6.1.4 - Construction

As previously noted, the only successor to activity CACONCF5040, "Attach BF Lift to Remaining Suspender – Post Load Transfer," is PGCON000100, "Phase 2 Complete (2340 Working Days)." It is suggested that the following three (3) activities are the proper Finish-to-Finish Successors:

CACON000550, "Install Suspender Clamps, Separators, Collars – Cable System"
CACON000580, "Apply Zinc Paste Waterproofing System (with cable wrapping)"
CACON000490, "Wrap Cables – Cable System"

F3. Reference 6.2.1.2 Description / Cause of Delay / Problem Area

See the Department's response to RFI 1295R1 regarding Cable Angle Break at Loaded Cable Position, dated July 7, 2008. It is understood that the designer is analyzing the proposed Load Transfer sequencing.

F4. Reference 6.2.1.3

See State Letter 05.03.01-002790, dated October 9, 2008 for response.

F5. Reference 6.4.1 Non Compliance Notices

MATERIAL LOCATION	FABRICATOR	NCT TOTAL	NPR's PENDING ABF	NPR's REJECTED	NPR's ACCEPTED, ACTIONS PENDING	NPR's CLOSED
CABLE SYSTEM - CASTING	ABF	1				0
CABLE SYSTEM - CASTING	GOODWIN	1				1
CABLE SYSTEM - CASTING	JAPAN STL	3				2
TO DATE - AS OF OCT 27, 2008		5	0	0	0	3
CURRENT - SEPT 21 - OCT 27, 2008						2

G <u>Area Specific Detail - E2 Cross Beam</u>:

G1. Reference 7.2 - Description of Current Problem Areas/Anticipated Delays

The slippage of the crossbeam pour date is noted. It is again advised that activity E2CON000050, "Place & Cure Concrete E2 Crossbeam including SWPPP," with an Original Duration of 21-days is on a 5D-SH Calendar and starts on Friday, December 5, 2008. It is suggested that the activity be split into two activities, "Placement" and "Cure."

G2. Reference 7.2.1.2

RFI 1495 R0-R2 was responded to in a timely manner to facilitate ABF's rebar placement operations. Distinguish the fabrication and design issues that delayed the concrete placement of the crossbeam. Also, quantify the impacts of fabrication and design issues, if any.

G3. Reference 7.4.1 Non Compliance Notice

MATERIAL LOCATION	FABRICATOR	NCT TOTAL	NPR's PENDING ABF	NPR's REJECTED	NPR's ACCEPTED, ACTIONS PENDING	NPR's CLOSED
E2 CROSS BEAM	DYSON	2				2
TO DATE - AS OF OCT 27, 2008		2	0	0	0	2
CURRENT - SEPT 21 - OCT 27, 2008		2				2

H Area Specific Detail - MEP Services:

H1. Reference 8.2.1.2

CCO 99 is currently in process and the related activities all contain float in a range from 100 to 300-days. Describe the impacts.

In closing, ABF has made several modifications to the planned or future production rates in the fabrication schedules which have not mitigated the continual slippage of previously reported Milestone Completion dates. There has been no improvement in the current OBG or T1 fabrication production during this reported period. Work continues to be "riding the data date" and planned durations and sequence of fabrication appears unattainable. ABF is again requested to submit a plan to correct the issues addressed above and submit a proposed mitigation plan for the reported 6-month fabrication delay. The schedule revision is accepted with the understanding that the current and previous review issues, which have not yet been addressed, will be dealt with expeditiously in the next schedule submission.

Sincerely,

GARY PURSELL
Resident Engineer

Attachment

cc: Don Ross
file: 05.03.01, 26.05